



# Silver Line Gateway Alternatives Analysis

Public Meeting – March 13, 2013

# Tonight's Meeting

- Study Overview
- Civic Engagement Plan
- Project Background / Alternatives
- Existing and Future Conditions
- Next Steps

# Study Overview

**GOAL:** Identify a recommended alternative for extending Silver Line service to Chelsea and East Boston that will enhance mobility and economic development potential

## Context:

- Transit improvements in corridor well aligned with MassDOT goals
- Leverage recent infrastructure investments
- Ongoing transportation funding debate
- Near-term constraints on Silver Line fleet

*Summary Schedule - 2013*

Task	Jan	Feb	Mar	April	May	June	July	Aug	Sept
1. Civic Engagement			★	★		★		★	
2. Refine Alternatives									
3. Alternatives Analysis									

★ Public Meeting



# Study Area

## Study Area:

- About 5 miles long
- Diverse mix of dense residential and commercial land uses
- Many recent state investments
  - Silver Line Transitway
  - Williams Tunnel
  - Airport Station
  - Coughlin Bypass Road
  - Chelsea Street Bridge
  - Grand Junction purchase



# Civic Engagement Plan

## Public informational meetings

- Four rounds of meetings in 9 months
- Bilingual meetings and materials
- Chelsea and East Boston

## Other outreach

- MBTA customers (1,000 flyers for this meeting)
- Community/advocacy organizations
- Elected officials

Project website [The project website link connects to the home page of Silver Line Gateway project in Massachusetts Department of Transportation Office of Transportation Planning website.](#)

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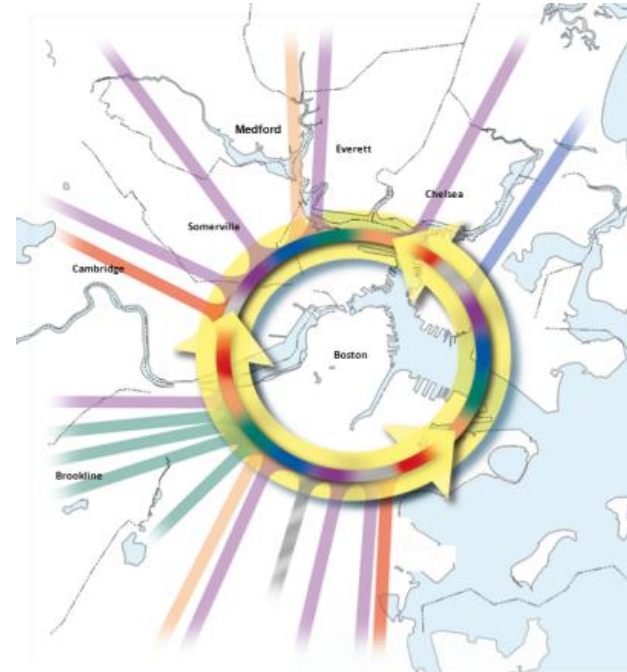


# Project Background / Alternatives

## Silver Line Waterfront



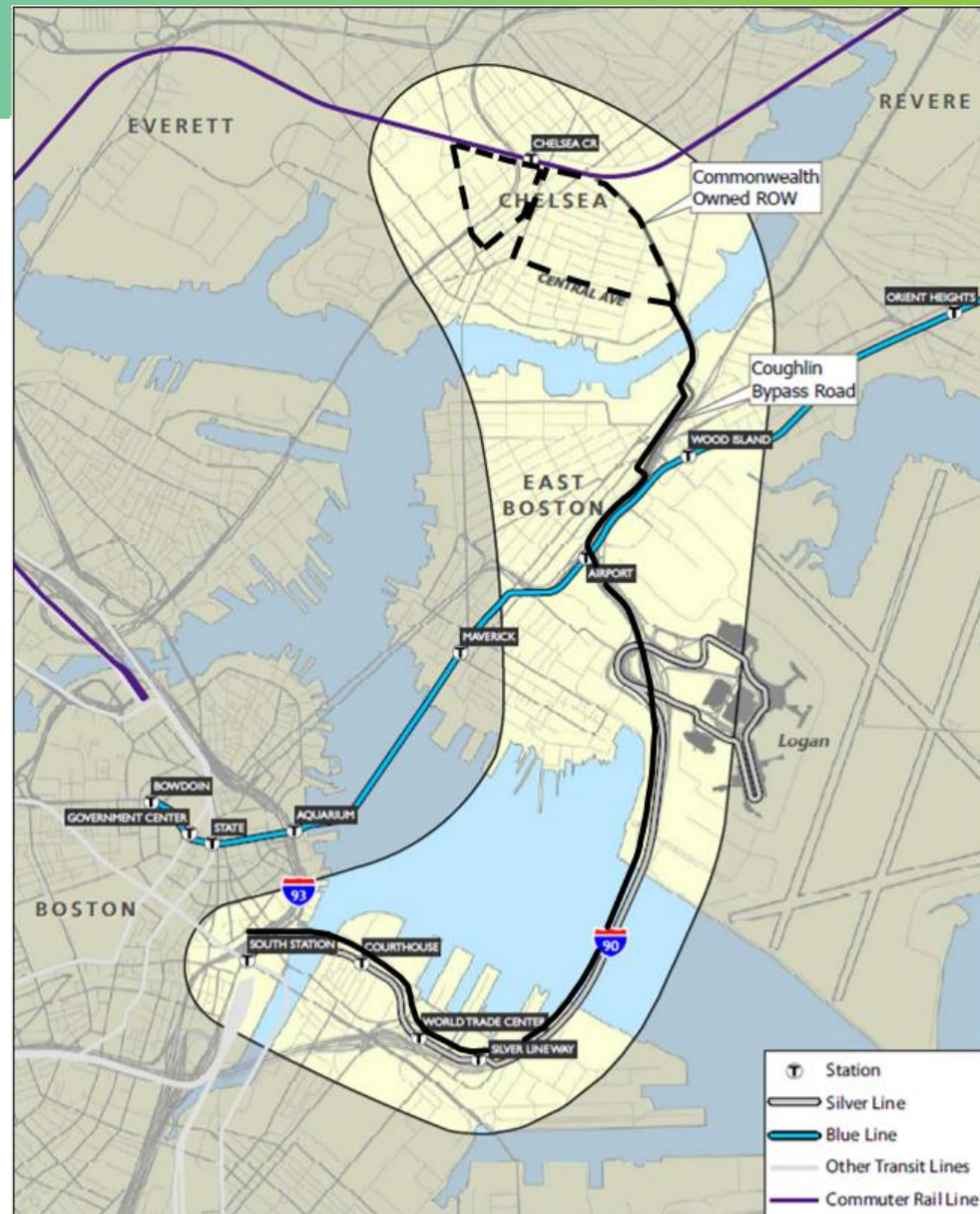
## Urban Ring Planning





# Alternatives

- Connects South Station, Seaport, East Boston, Blue Line, and Chelsea
- New SL route – does not serve Logan terminals
- In Chelsea would use Central Avenue or the former rail right-of-way
- Civic engagement effort to inform routing and station location decisions



# What is Bus Rapid Transit (BRT)?

- Combines flexibility of bus with features that collectively achieve rapid transit service quality:
  - Off-board fare collection
  - Segregated right of way
  - High frequency
  - Stations with amenities
  - Wider station spacing
  - Branding
- Planning informed by BRT industry standards, such as ITDP\*



\*Institute for Transportation & Development Policy



# BRT – the Boston Experience

## Past Projects/Proposals

- Silver Line Washington
- Silver Line Waterfront
- Key Bus Routes

## BRT Challenges in Boston

- Boston streets
  - Street widths
  - Lack of grid
- Fare collection



# Existing and Future Baseline Conditions

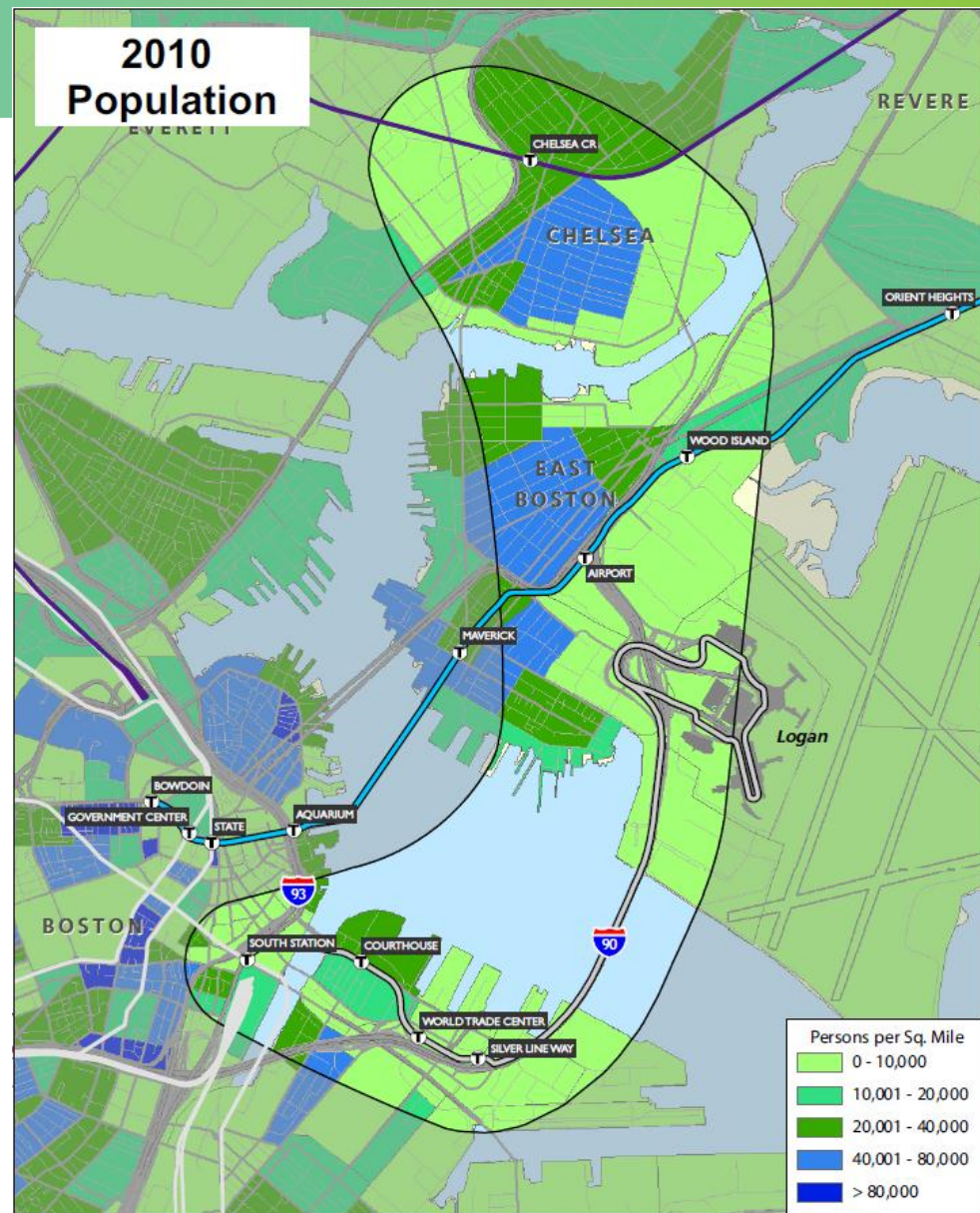
Land Use/Demographics

Transit Operations

Traffic

Environment

# Existing and Projected Population Density for 2010

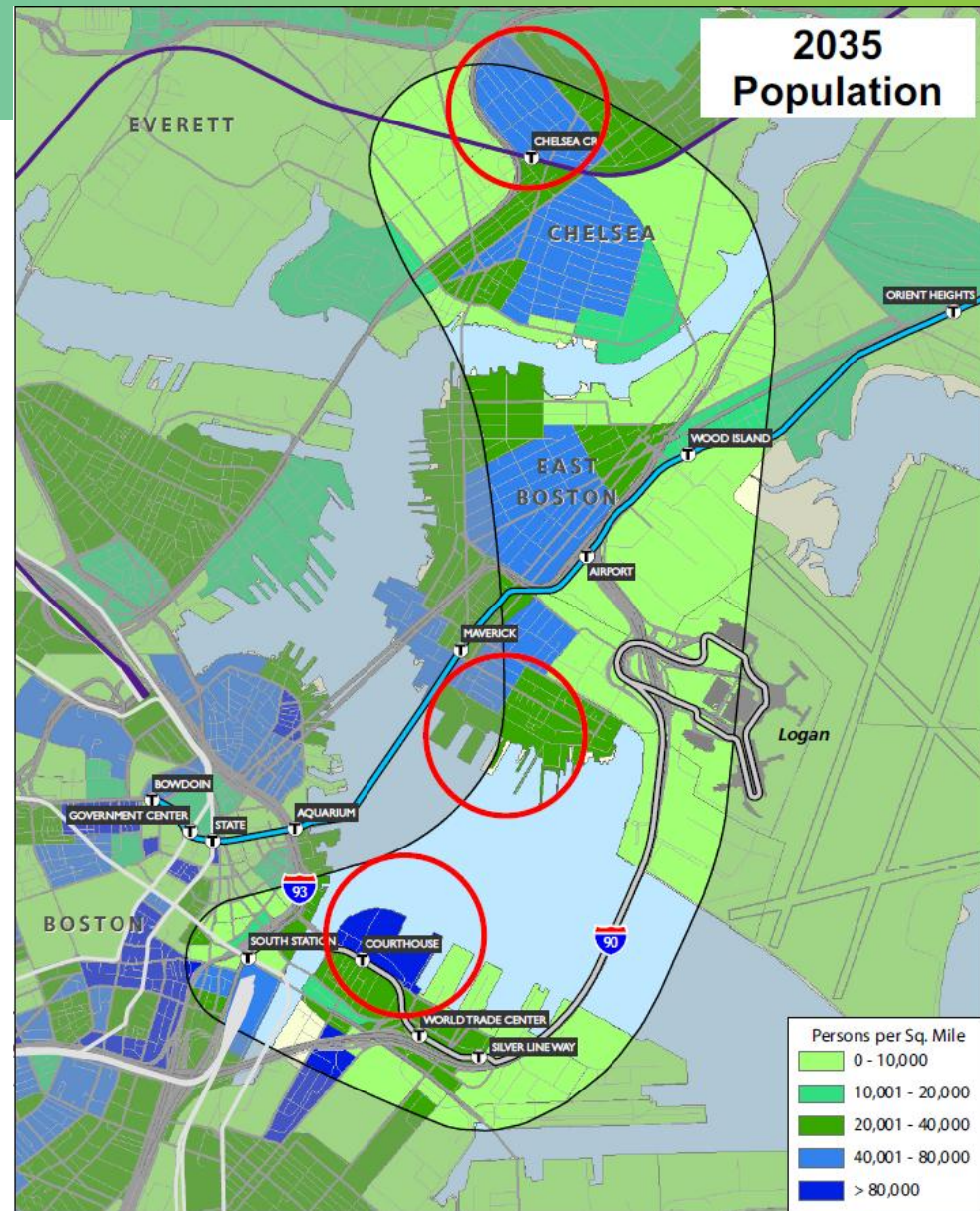


Source: MassGIS, MassDOT, CTPS



# Existing and Projected Population Density for 2035

- Example Sources of Population Growth:
  - One North Boston Project in Chelsea
  - Portside Project in East Boston
  - Fan Pier and Seaport Square in South Boston Waterfront

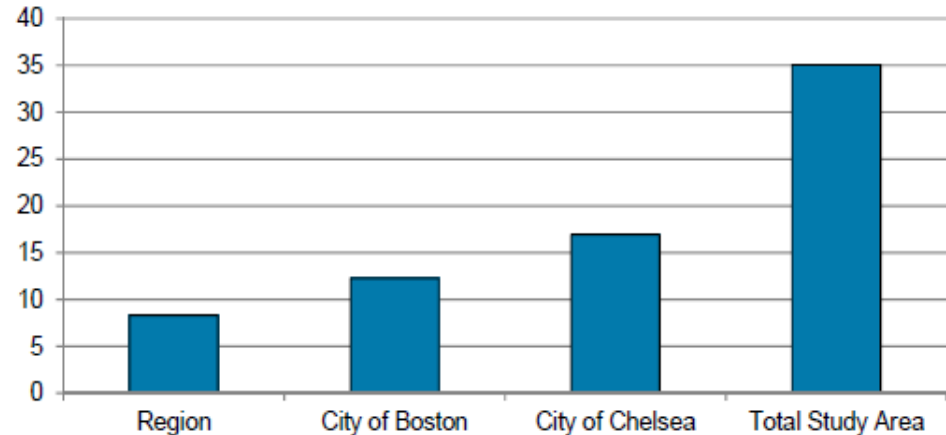


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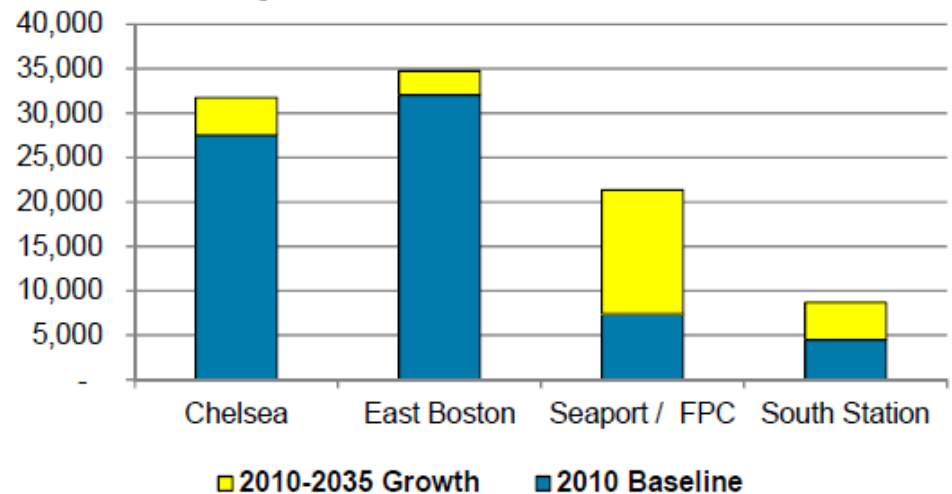
# Demographics / Population

- Population growth in project study area projected to outpace region
- Absolute population growth in project study area is greatest in Seaport / Fort Point Channel

**% Population Change 2010-2035**



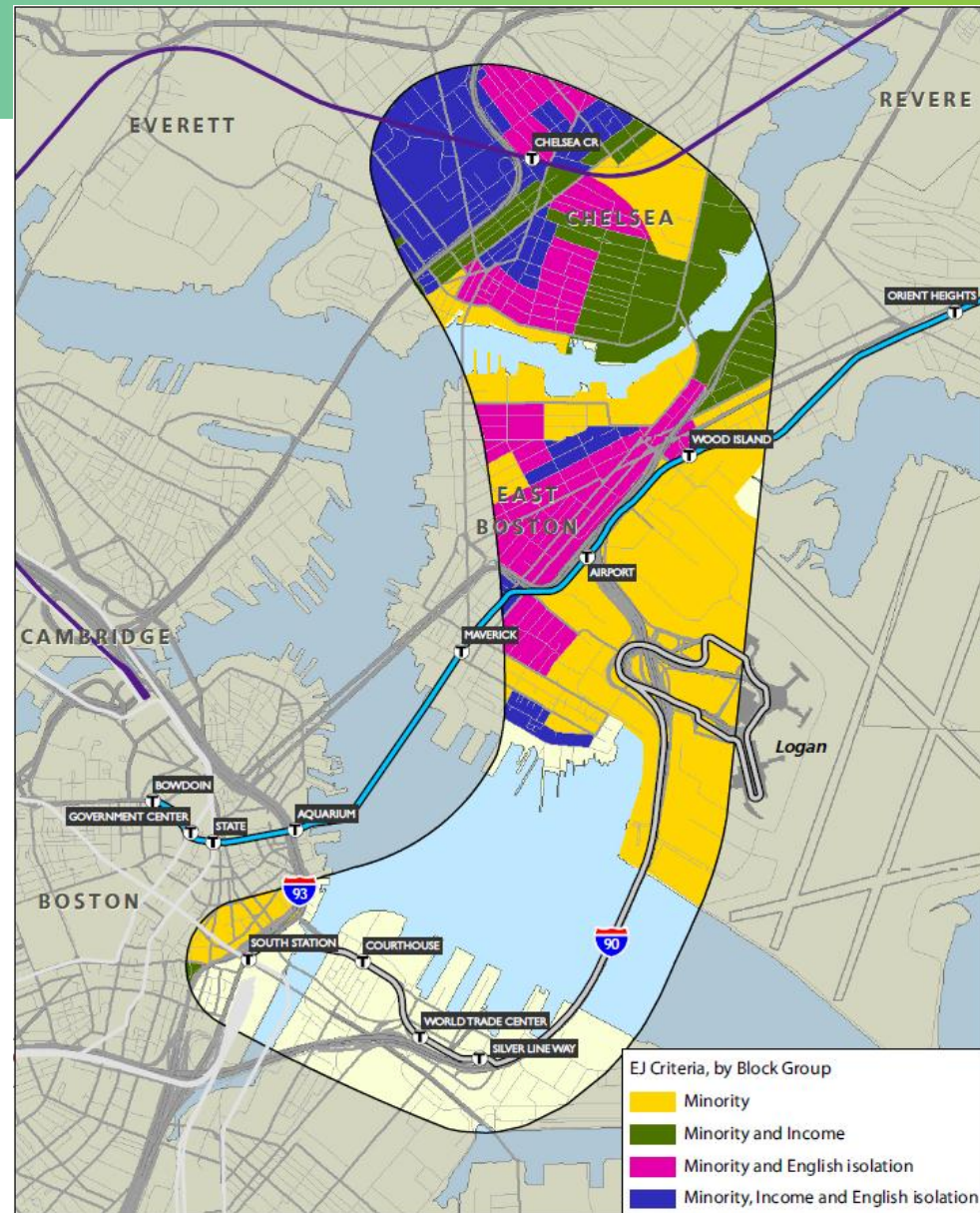
**Population Growth 2010-2035**



Source: CTPS, from MAPC Demographic Projections

# Environmental Justice

- The project will provide improved / increased service to Environmental Justice populations in Chelsea and East Boston



Source: MassGIS, MassDOT, CTPS

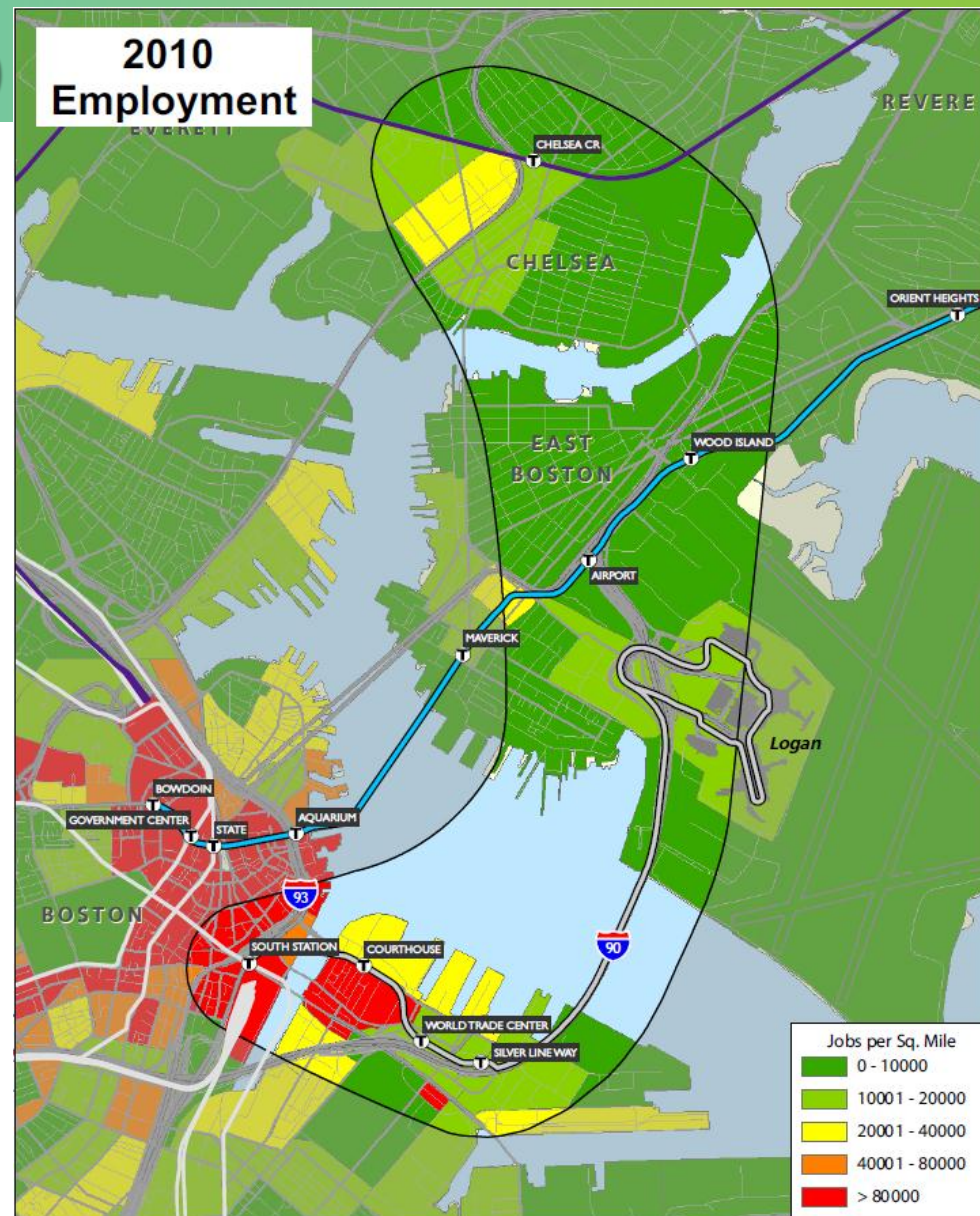
Source: Massachusetts Executive Office of Energy and Environmental Affairs (EEA)

**massDOT**  
Massachusetts Department of Transportation  
Office of Transportation Planning

**SILVER LINE GATEWAY**  
Service to Chelsea, East Boston & the Blue Line



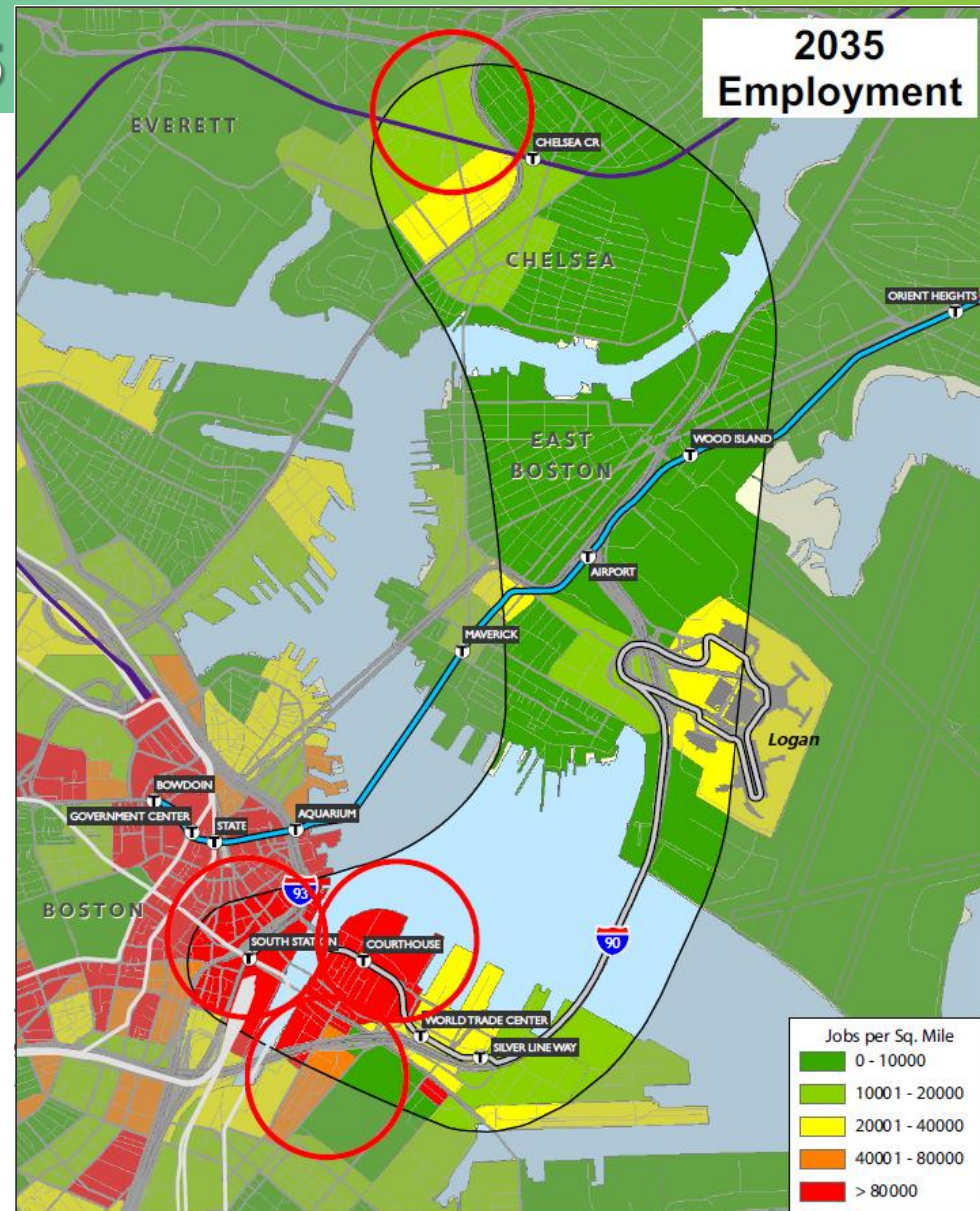
# Existing and Projected Employment Density for 2010



Source: MassGIS, MassDOT, CTPS

# Existing and Projected Employment Density for 2035

- Example Sources of Job Growth:
  - FBI Headquarters in Chelsea
  - Fan Pier and Seaport Square in South Boston Waterfront
  - Fort Point Channel
  - South Station Air Rights and III Federal Street in South Station/Financial District Area

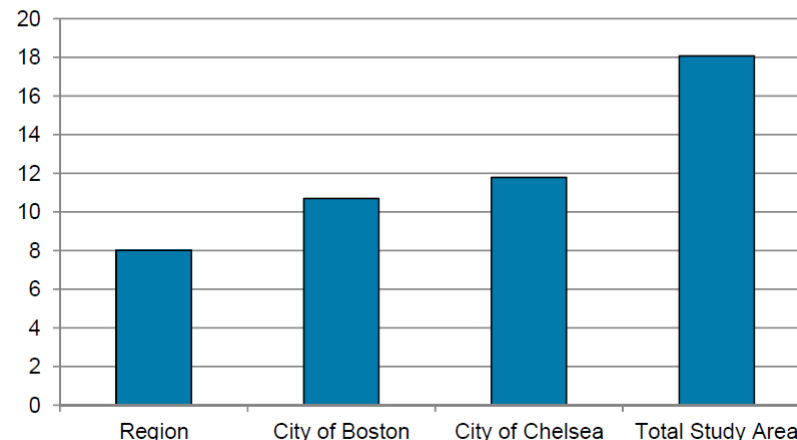


Source: MassGIS, MassDOT, CTPS

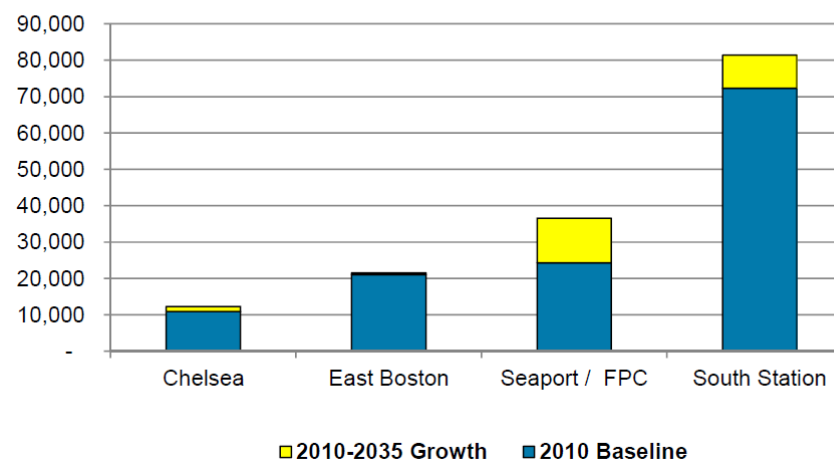
# Demographics / Employment

- Employment growth in project study area projected to outpace region
- Absolute employment growth in project study area is greatest in Seaport / Fort Point Channel and South Station / Financial District neighborhoods

**% Employment Change 2010-2035**



**Employment Growth 2010-2035**



Source: CTPS, from MAPC Demographic Projections



# Existing Conditions – Bus and BRT Service

Route	Origin - Destination	Frequency of Service (In Minutes)					Average Weekday Ridership
		Rush Hour	Day	Night	Sat.	Sun.	
<b>111</b>	<b>Haymarket Station – Woodlawn or Broadway/Park</b>	<b>5</b>	<b>12</b>	<b>10</b>	<b>10</b>	<b>12</b>	<b>8,692</b>
112	Wood Island Station – Wellington Station	35	35	--	40	45	1,213
114	Maverick Station – Market Basket/Mystic Mall	--	40	--	--	--	1,499
<b>116</b>	<b>Maverick Station – Wonderland Station (via Revere Street)</b>	<b>20</b>	<b>30</b>	<b>60</b>	<b>30</b>	<b>40</b>	<b>4,388</b>
<b>117</b>	<b>Maverick Station – Wonderland Station (via Beach Street)</b>	<b>20</b>	<b>30</b>	<b>60</b>	<b>30</b>	<b>40</b>	<b>4,058</b>
SL1	South Station – Logan Airport	10	10	12	12	8	7,828
SL2	South Station – Design Center	5	10	15	15	15	5,282

Note: Key Bus Routes are bold and highlighted in yellow

# Existing Conditions – Blue Line and Commuter Rail

Route	Origin - Destination	Frequency of Service (In Minutes)					Daily Boardings
		Rush Hour	Day	Night	Sat.	Sun.	
Blue Line	Bowdoin Station – Wonderland Station	5	9	13	9	9	44,233
Newburyport/ Rockport Line	North Station – Newburyport or Rockport (via Chelsea)	22	60	80	70	70	8,977

Station	Weekday Boardings
Maverick Station (Blue Line)	8,134
Airport Station (Blue Line)	6,901
Wood Island Station (Blue Line)	1,450
Chelsea Station (Commuter Rail)	156 ( <i>Inbound Only</i> )

# Existing Conditions – Chelsea/Downtown Connections

## Commuter Rail to North Station

Pros: Fast; direct

Cons: Infrequent; fare integration

## Route 111 to Haymarket

Pros: Direct; very frequent

Cons: Reliability; overcrowding

## Route 114/116/117 to Blue Line

Pros: Combined frequency good

Cons: Transfers; reliability; travel time

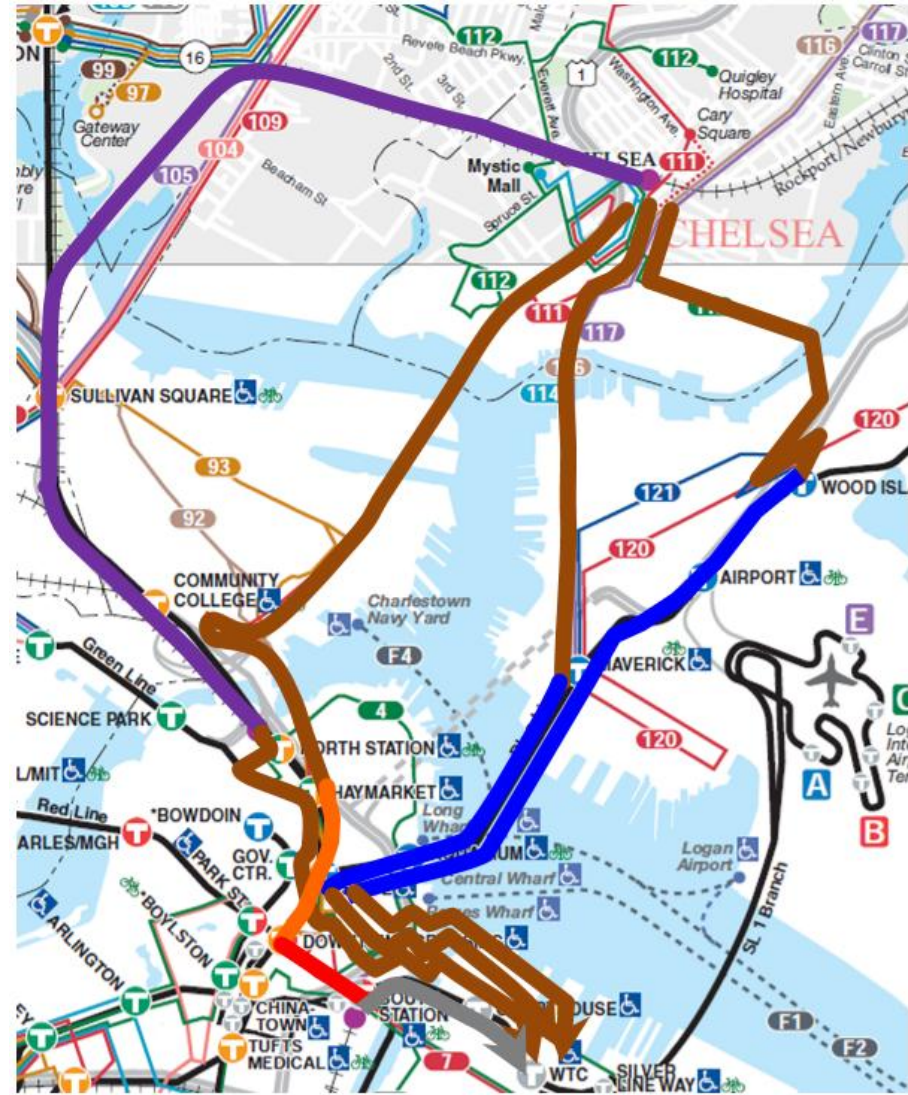
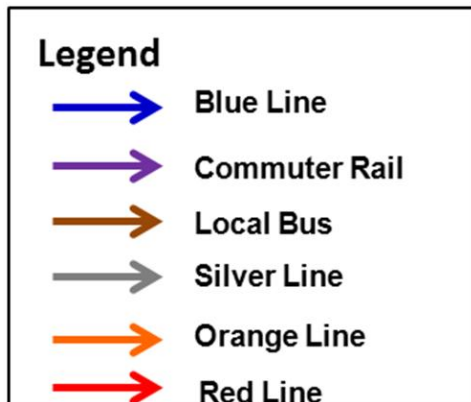
- Many MBTA options, but isolation from direct and frequent rapid transit service makes Chelsea unique among dense, close-in communities





# Existing Conditions – Seaport Connections

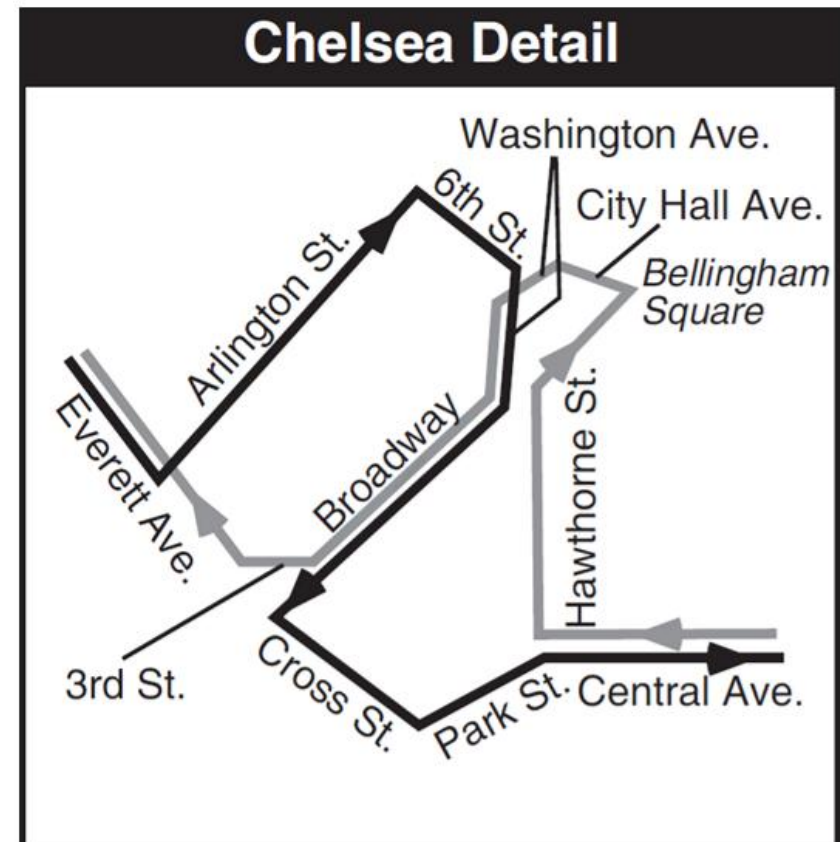
- Seaport District difficult to reach from Chelsea/East Boston, and Blue Line
- Travel time varies, but trips typically > 30 minutes
- Multiple transfers to complete trips with transit
- Fastest trips often include long walks



# Existing Conditions – Bus Routing in Chelsea

- One way streets in and around Bellingham Square result in circuitous and confusing routes
- Lack of wayfinding and visual connections between Chelsea Commuter Rail Station and Bellingham Square and its bus routes
- Challenges to linking downtown Chelsea with new development across Route 1

Route 112 in Chelsea



# Existing Conditions – Silver Line Fleet Capacity

- Silver Line Waterfront buses are unique dual-mode articulated vehicles in the MBTA fleet and future needs and options will be examined
- Route SL1 is nearing its capacity with growth in the South Boston Seaport area
- Without extension of the Silver Line Waterfront service to Chelsea access to the growing South Boston Seaport area will remain difficult and time consuming





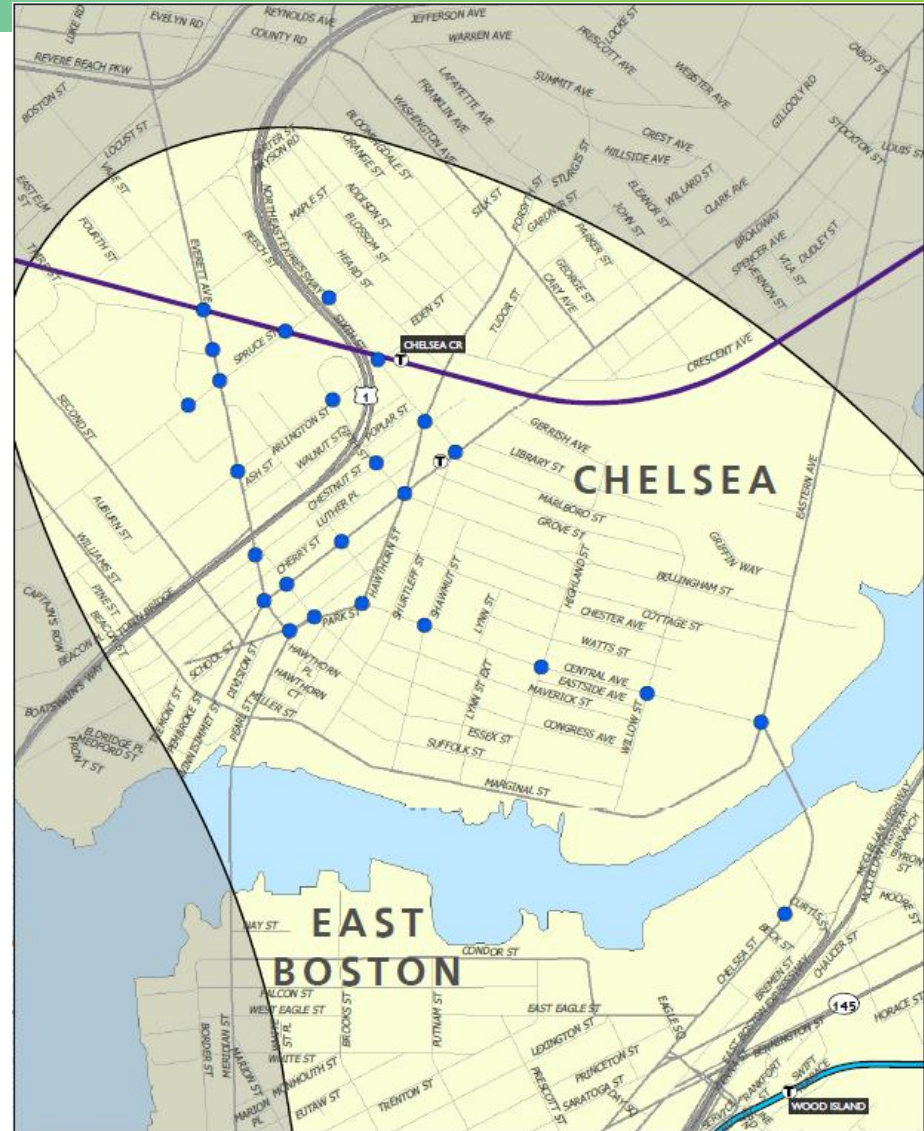
# Traffic – Traffic Analysis Methodology

- Evaluate Existing and Future Conditions
- Central Transportation Planning Staff Travel Projections
- Evaluate Alternative Routes
- Identify Potential Impacts
- Identify Travel Time Savings Measures



# Traffic – Study Intersections Chelsea

- Chelsea
  - 24 Study Intersections
  - Bellingham Square
  - School Zones
  - Chelsea Street Bridge
  - RR Grade Crossings
- East Boston
  - 8 Logan intersections
  - Bypass Road
- South Boston
  - 5 intersections
  - Silver Line portal

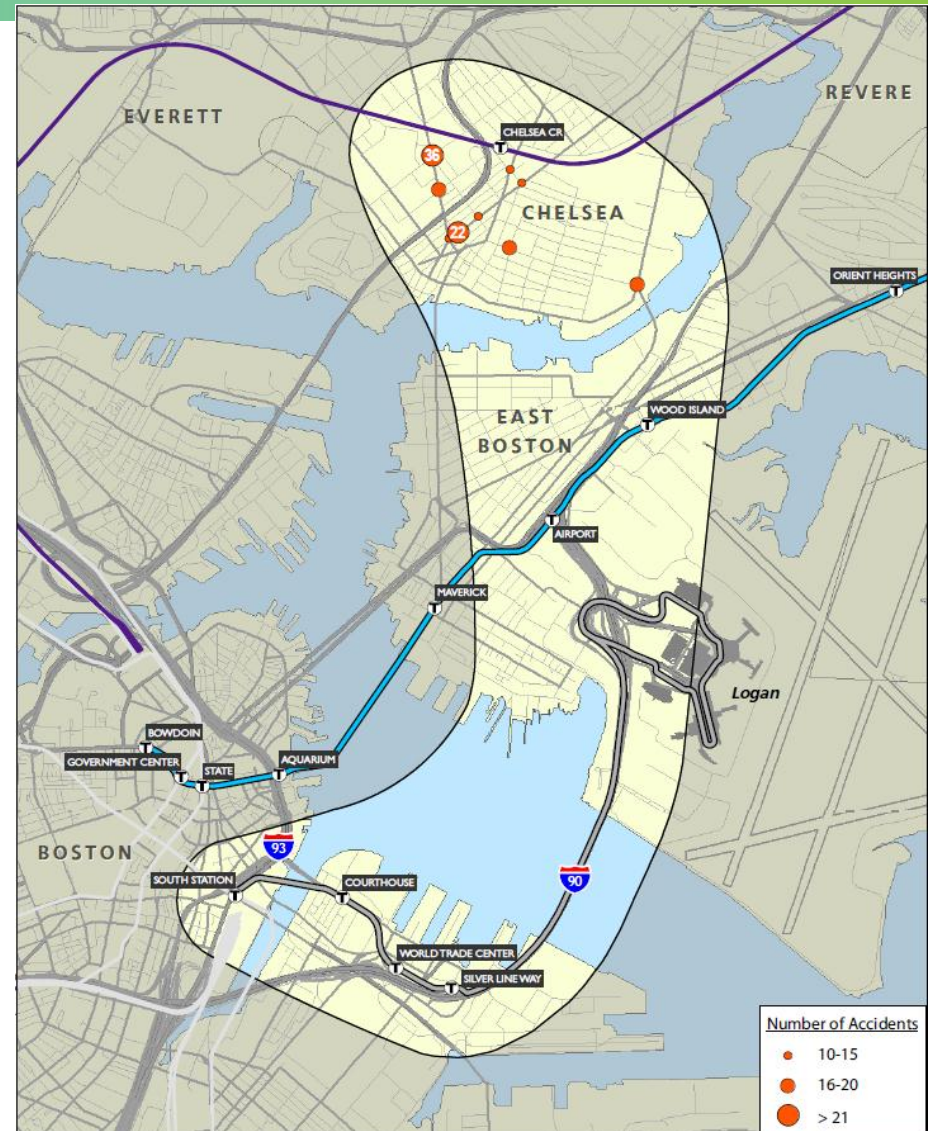


Source: MassGIS, MassDOT



# Traffic – High Accident Locations

- Everett Avenue at Spruce Street = 36 Accidents
- Broadway/Third Street/Congress Avenue = 22 Accidents



Source: Crash Data for Years 2008, 2009, and 2010. MassDOT



# Traffic – Parking Inventory

- Focus on Chelsea
- Conduct Parking Occupancy Survey
- Identify Potential Parking Impacts
  - On-Street - Bus Stations
  - Off-Street – Private Lots Adjacent to Busway



# Identify Environmental Constraints and Issues

- Map resources to identify constraints and jurisdictional areas
- Field verify resources, confirm wetlands along Grand Junction ROW
- Identify property acquisitions
- Identify excavation and hazmat
- Determine stormwater compliance measures and all required permits
- Identify Environmental Justice benefits and impacts



# Next Steps

- Continue civic engagement effort
- Document existing and future baseline conditions
- Develop transit alternatives to address needs
- Begin analysis and comparison of alternatives
- Monitor transportation funding debate, and Silver Line fleet issues
- Provide project update at next public meeting in April





# THANK YOU

## QUESTIONS & ANSWERS